

Results: 32% (25/80) of patients stayed beyond MFD status. This equated to 23% (67/294) of the total LOS for the whole cohort. Demographics were similar between the groups (timely discharge group- TDG and delayed discharge group-DDG). Significant factors between the groups were operative intervention (9 versus 1) $p = 0.003$ and modified Barthel Index $p = 0.019$. The prolonged LOS quantifies to annual bed costs of £180,00–320,000 in our institution.

Conclusion: Non-operative elderly patients without current home/social care packages represent the group of patients that should be actively targeted from admission for efficient discharge

0616: RETROSPECTIVE RE-AUDIT INTO THE USE OF ANTIBIOTICS IN APPENDICITIS AT A DISTRICT GENERAL HOSPITAL

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Aim: Ascertain change in practice in antibiotic prescription following previous review of trust guidelines adherence, found to be poor, and subsequent education of all grades of surgical staff.

Methods: Retrospective audit of hospital notes of all appendicectomies in preceding 2 months: 41 patients (July 2014–August 2014), proforma devised, data collated. Three standards set as per trust antibiotic guidelines: antibiotic type, pre and post op usage: to be met in 100% of cases.

Results: 1. Pre-op antibiotics (co-amoxiclav if <65yrs, piperacillin/tazobactam if >65yrs) 95% of patients given antibiotics, 47.8% given appropriate antibiotic (24% previously) 2. Post-op antibiotics (co-amoxiclav if <65yrs, piperacillin/tazobactam if >65yrs). 56% of patients given appropriate antibiotic (19% previously). However, some still given metronidazole (37%). 3. Antibiotic duration (24hours if uncomplicated, 5days if complicated appendicectomy). 66% receiving appropriate duration (56% previously).

Conclusion: No standard met in 100% of cases. However, there has been moderate improvement since the previous data collection in terms of the correct antibiotic being prescribed. Recommendations; email to surgical staff to remind of trust antibiotic guidelines for appendicitis, encourage junior staff to challenge antibiotic decisions and adopt antibiotic stewardship. Re-audit results.

0618: FALLING FROM TREES, A FREQUENT MECHANISM OF CERVICAL SPINAL INJURY IN A REMOTE PROVINCE OF PAPUA NEW GUINEA

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Aim: To calculate the incidence of cervical spine injuries for the province. To determine the variation in mechanism of injury. To illustrate access to health care across this island province.

Methods: All patients admitted to the surgical ward at a regional hospital in Papua New Guinea over a 5-year period between 04/2008 and 04/2013 were included. Patients were identified from the admission record and any evidence of cervical injury and included for final analysis. Information was extracted for: mechanism of injury, age, sex, occupation, duration of inpatient stay and their place of origin.

Results: There were 4,191 surgical admissions, with 28 (0.67%) documented cases of cervical spinal injury resulting in a provincial incidence of 2 cases per 100,000 per year. Mean age was 32 (range 4–>60). Average duration of stay was 30 days (range 0–131). Nine (32%) of cases were RTAs and 6 (21%) resulted from falls from trees.

Conclusion: Majority of cervical spinal injuries in this study are high injury, common in males and are often the result of falls from trees or RTAs resulting in long inpatient stays. Tree climbing is common practice in this predominantly subsistence community that demonstrates an unusual mechanism of injury.

0659: THE ROLE OF ULTRASOUND SCANNING (USS) IN RIGHT ILIAC FOSSA (RIF) PAIN: IS USS IMAGING DELAYING EMERGENCY APPENDICECTOMIES?

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Aim: This project investigates USS results from patients who had undergone appendicectomies to assess the sensitivity and specificity in detecting a histology positive acute appendicitis. We also investigated whether the decision to USS delayed an emergency procedure.

Methods: Retrospective data collection between January–June 2014. Data was collected from Theatre logbooks, Pathology/PACS systems.

Results: Between January–June 2014, 226 appendicectomies were performed on the emergency-operating list. 15% ($n = 34$) had undergone pre-operative USS (74% Female, Mean age = 27 years). 76% ($n = 26$) of those who had a scan went onto have a diagnostic laparoscopy and appendicectomy, 24% ($n = 8$) had an open appendicectomy. 53% ($n = 18$) were found to have a histology proven positive appendicitis. USS as an investigation to detect acute appendicitis demonstrated a sensitivity of 22.2% and specificity of 68.8%, PPV of 44.4% and a NPV of 44.0%. A mean delay of 0.97 days was observed from admission to operation due to USS.

Conclusion: USS result often does not change the definitive management in patients with ongoing RIF pain. Diagnostic laparoscopy can be therapeutic even in the absence of appendicitis. With USS delaying time to theatre and increasing hospital stay we conclude the USS has a limited role in investigating RIF pain in a patient presenting with the classic acute appendicitis.

0695: ANALYSIS OF THE IMPACT OF A 24-HOUR EMERGENCY THEATRE ON TIME TO APPENDICECTOMY

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Aim: We investigated whether the introduction of a 24 hr emergency theatre reduced the waiting time for appendicectomy in adult patients with histologically proven appendicitis.

Methods: The study was conducted in a 800-bed hospital. We performed analysis using prospectively maintained data of two cohorts of patients over 12 month periods; one in 2005/6 and in 2012, before and after the introduction of an emergency theatre. Data was gathered from theatre logbooks, pathology reports and hospital charts.

Results: There were 228 appendicectomies in the 2005/6 cohort compared to 409 appendicectomies in 2012. Excluding paediatric (82 and 184 patients respectively) and ineligible (13 and 38 respectively) patients; there were 133 and 190 patients for analysis. Negative appendicectomy rate was 14% in 2005/6 compared to 23% in 2012 ($p = 0.03$). The perforation/gangrene rate was 17% and 18% respectively. Patients with histologically proven appendicitis, there was a mean 23.44 hr wait between first ED attendance and appendicectomy in 2005/6 compared to 20.28 hrs in 2012 (14.5% reduction, $p = 0.034$). 89% of appendicectomies were completed laparoscopically in 2012 compared to 43% in 2005/6 ($p = 0.0001$).

Conclusion: Since the introduction of a dedicated 24-hour emergency theatre, there has been a significant reduction in time to appendicectomy for histologically proven appendicitis despite a 79% increase in appendicectomy workload over the time period.

0716: THE AMBULATORY EMERGENCY SURGERY HOT CLINIC; STREAMLINING SERVICES AND SAVING MONEY

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Aim: The Hot Clinic offers rapid assessment and investigation of the acute general surgical patient and ongoing review of patients post-discharge. Our aim was to retrospectively examine the use of the Hot Clinic, its impact on admissions, length of stay and cost.

Methods: A retrospective review of Hot Clinic outcomes over five consecutive months was conducted. Post-discharge encounters evaluated for reduction in length of stay (LOS), acute encounters were analysed to determine whether a surgical bed was required and admission was prevented. Cost analysis was performed using Trust data.

Results: 137 Hot Clinic appointments were conducted in a 5 month period. In 77% of acute cases ($n = 81$) admission was prevented, with 43 % not

requiring a surgical bed. In post-discharge cases ($n=56$) the mean reduction in length of stay was 2.76 days, saving 52.5 days. There is an estimated saving of £18 600 by prevented admissions, and £15 750 in reduced LOS. The Hot Clinic is zero cost, therefore saving in total £34 350.

Conclusion: The Hot Clinic provides patient centered care by streamlining clinical assessment and management of ambulatory general surgical patients. It has been demonstrated that the Hot Clinic prevents unnecessary admissions and saves money.

0744: DECISION TO INCISION: A QUALITY IMPROVEMENT STUDY

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Aim: There are no current guidelines on recommended time interval between decision for operation and time of incision. A local quality improvement study was performed in a district general hospital to assess timings from decision-to-incision in order to identify if there are any issues in this process.

Methods: A retrospective study of the timings of all general surgical emergency operations covering a one-month period was carried out. Three aspects were assessed; decision-to-incision (time from decision for surgery to knife-to-skin), decision-to-booking (time from decision for surgery to booking), and booking-to-incision (time from booking to knife-to-skin) **Results:** 61 patients identified.

Decision-to-incision ($n = 34$) demonstrated average (mean) time of 564 minutes (9.4 hours). Decision-to-booking ($n = 29$) showed an average time of 200 minutes (3.3 hours). Booking-to-incision ($n = 46$) found an average time of 367.7 minutes (6.1 hours).

Conclusion: The main area of delay identified was the time between booking and time of incision. Only 69.5% of patients are operated on within six hours of booking.

As a result of this study, areas for improvement have been highlighted in promoting improved documentation, education within surgical teams, faster booking once decision for theatre has been made, and improved communication within the multidisciplinary team.

0812: AUGMENTING THE DECISION MAKING PROCESS IN ACUTE APPENDICITIS

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Aim: We investigated the use of blood markers (WCC, CRP and serum bilirubin) and diagnostic imaging (USS and CT scan) in the diagnosis of acute appendicitis.

Methods: This was a retrospective analysis of consecutive patients undergoing appendicectomy in seven hospitals within GG&C Health Board during a 6 month study period. Data were collected from electronic patient records. Sensitivity and specificity of each investigation for diagnosing acute appendicitis was calculated.

Results: 363 patients were included. Diagnostic imaging was used in 38% of cases. The negative appendicectomy rate was 18% when no imaging was used, 23% when USS was used and 1% when CT scanning was used. Elevated bilirubin had a sensitivity of 0.44 and a specificity of 0.84 for detecting acute appendicitis. Sensitivity and specificity for elevated WCC were 0.78 and 0.55, and for elevated CRP were 0.81 and 0.59, respectively. The specificity of bilirubin for diagnosing perforated appendicitis was 0.63.

Conclusion: WCC and CRP were sensitive blood markers in acute appendicitis. However, serum bilirubin was more specific and so has utility in diagnosing acute appendicitis. Diagnostic imaging with a CT scan was very effective at reducing the rate of negative appendicectomy, whereas with USS it was not.

0813: OUTCOMES AFTER OPERATIVE INTERVENTION FOR CLAVICULAR FRACTURE

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Aim: Surgical fixation of clavicle fractures remains a disputed topic in orthopaedic surgery. Many surgeons advocate early intervention with

open reduction and internal fixation (ORIF), as it is thought that long-term complications such as non-union, malunion and neurovascular compromise are reduced. We were keen to assess outcomes for patients undergoing ORIF for clavicle fractures in Northern Ireland.

Methods: This study reviewed all adult patients undergoing clavicular ORIF between 2008 and 2012 in the Royal Victoria Hospital in Northern Ireland. Patient were classified according to fracture location and divided into acute ($<4/52$) and delayed fixation ($>4/52$). Post-operative complications, which included neurovascular compromise, metalwork failure and persistent non- or mal-union, were recorded.

Results: Following exclusions, 72 patients were identified for the study. 72% (52) patients sustained a mid-shaft fracture and 28% (20) sustained a lateral fracture. 50 patients underwent fixation in the acute phase with. 84% having undergone fracture fixation in the acute phase following injury reported no complications. Of the 22 delayed phase patients, 68% (15/22) underwent surgery due to non-union of the fracture.

Conclusion: Open reduction and internal fixation of clavicle fractures in the acute phase of injury does appear to reduce long-term complications in comparison to those undergoing delayed fixation.

0832: CHANGING TRENDS IN DIAGNOSIS AND MANAGEMENT OF APPENDICITIS: A 9-YEAR STUDY

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Aim: Appendicitis is the most common cause of the acute abdomen and is often a diagnostic challenge, traditionally considered to be a clinical diagnosis. This study analysed the use of laparoscopy in suspected appendicitis with particular emphasis on the negative appendicectomy rate compared to open appendicectomy.

Methods: A retrospective analysis was performed of all appendicectomies undertaken in one Health Board over a nine-year period. Data were obtained from the theatre and pathology records to assess type of surgery performed as well as for histology specimens.

Results: Complete data were obtained on 1435 patients who underwent appendicectomy during the 9-year period (820 open and 615 laparoscopic). 454 laparoscopic cases were in the last three years. There was a significantly higher rate of histologically normal appendix in the open group compared to the laparoscopic group, $p<0.001$. In the group with a macroscopically normal appendix the incidence of microscopic appendicitis was 27.4%. A further 69 cases of other pathologies were identified on histological examination.

Conclusion: The increased use of laparoscopy is associated with a reduction in the negative appendicectomy rate. This study provides evidence that a macroscopically normal appendix should be removed due to a high incidence of microscopic appendicitis or other pathology.

0859: AN AUDIT OF ACUTE GENERAL SURGICAL ADMISSION DOCUMENTATION

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Aim: The admission clerking document is an important record of a patient's initial assessment. If the quality of admission clerking is sub-standard, this can have a negative impact on patient care. The aim of this study was to audit the quality of surgical patient clerking documentation in a single tertiary referral centre.

Methods: The CRABEL Score [2] and the Royal College of Physicians guidance on admission documentation [3] were used to create a scoring system for 20 aspects essential to an acute surgical admission clerking. The casenotes of 20 emergency admission patients were scored retrospectively. An acute surgical admission proforma was subsequently designed and implemented following presentation at the clinical governance meeting. The casenotes of 20 emergency admissions were then scored prospectively and compared to cycle one.

Results: Between the first and second round, there were significant improvements across 13 of the 20 measured aspects. Documentation of